

*Leiosoma cibrum* GYLL.: Bayer. Alpen, Hochgern, 1.6.1993 (in den Chiemgauer Bergen bereits mehrmals, aber immer nur Einzelstücke) (leg. HIRGSTETTER).

*Hypera rumicis* (L.): Freising, von Hochwasserdamm-Vegetation gekäschert, 5/1991 (leg. ROPPEL).

*Mogulones larvatus* SCHLTZ.: Fränk. Jura, Schernfeld, 26.8.1992 (leg. HIRGSTETTER).

*Gymnetron pascuorum* GYLL.: Fränk. Jura, Eichstätt, 13.6.1992 (leg. HIRGSTETTER).

*Gymnetron stimulosum* (GERM.): Fränk. Jura, Dollnstein, 18.6.1985 (leg. HIRGSTETTER). - Neu für Bayern?

*Stereonychus fraxini* GEER: Fränk. Jura, Schernfeld, 17.5.1993 (leg. HIRGSTETTER).

*Rhynchaenus calceatus* GERM.: Chiemsee-Moor bei Bernau, 29.4.1993; kommt nur auf Moorbirke vor (leg. HIRGSTETTER). - Neu für Bayern?

Ergänzende Bemerkung zu der im 15. Bericht erwähnten Apionidae *Microon* (vormals *Nanophyes*) *sahlbergi*: Herr SPRICK aus Hannover teilt mit, daß *Pepis portula* offensichtlich nicht die Wirtspflanze dieser Art ist. Auch andere Curculionidea konnten aus dieser Pflanze nie gezüchtet werden. P. DAUPHIN (Bull. Soc. ent. France 97(1), 65-68, 1992) berichtet, daß die Wirtspflanze sowohl von *Microon sahlbergi* als auch von *Pelenomus* (vormals *Phytobius*) *olssoni* in Wirklichkeit eine *Elatine*-Art ist, er nennt *E. hexandra*. Es wäre sicher sinnvoll, die Sammelaktivitäten einmal auf Pflanzen dieser Gattung zu konzentrieren.

Anschrift des Verfassers:

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## Two new species of the genera *Dichrogaster* and *Zoophthora* from Spain

(Hymenoptera, Ichneumonidae)

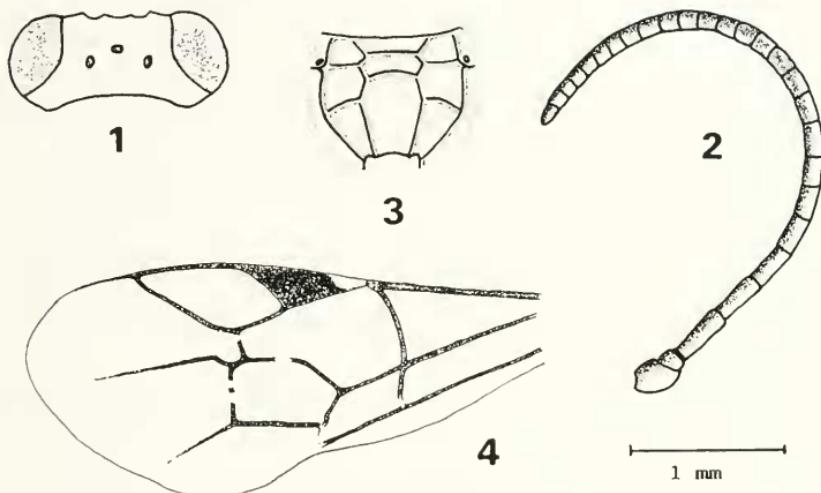
Santiago BORDERA and Klaus HORSTMANN

### Abstract

The species *Dichrogaster hispanica* and *Zoophthora macrops* (Hymenoptera, Ichneumonidae, Cryptinae, Phygaeuontini) from Spain are described as new.

#### *Dichrogaster hispanica* sp. n.

Holotype (♀): Montgó (Alicante), 4/11-VI-1992, Malaise trap, leg. F. LUNA (Museo Nacional de Ciencias Naturales, Madrid). Paratypes: 1♀, 2♂ same locality, date and collector (1♀, 1♂ coll. BORDERA, 1♂ coll. HORSTMANN); 1♀ same locality and collector, 7/15-V-1992 (coll. HORSTMANN); 1♀ Porta Coeli (Valencia), 18-VI-1990, leg. LUNA (coll. HORSTMANN); 1♀ same locality



Figs. 1-4. *Dichrogaster hispanica* sp. n., holotype ♀. 1. Head in dorsal view; 2. Antenna; 3. Propodeum in dorsal view; 4. Front wing.

and collector, 17/24-III-1992 (coll. BORDERA); 1♂ same locality and collector, 21-V-4-VI-1992 (coll. BORDERA); 1♀ Saler (Valencia), 30-III/6-IV-1992, Malaise trap, leg. LUNA (coll. BORDERA); 1♀ Betxi (Castellón), 16-X-1989, leg. BORDERA (coll. BORDERA); 1♀ Montesinos (Alicante), 16-V-1989, leg. BORDERA (coll. BORDERA); 1♀ Soto del Real (Madrid), 25-V-1962, leg. LLOPIS (coll. BORDERA); 2♂♂ Gandia (Valencia), 27-V/2-VI-1989, Malaise trap, leg. SELFA (1♂ coll. BORDERA, 1♂ coll. HORSTMANN); 1♂ same locality and collector, 20/26-V-1989 (coll. BORDERA); 1♂ L'Alcora (Castellón), 16-IV-1988, leg. BORDERA (coll. BORDERA); 1♂ Burriana (Castellón), 20-V-1989, leg. BORDERA (coll. BORDERA), 1♂ El Palmar (Valencia), 18-V-1989, leg. BORDERA (coll. BORDERA); 1♂ Onteniente (Valencia), 4-VII-1987, leg. BORDERA (coll. BORDERA).

The new species belongs to the *Dichrogaster aestivalis* group (TOWNES 1983: 104 ff.), close to *D. longicaudata* (THOMSON) (syn. *D. diatropus* TOWNES) and *D. tenerifae* (HELLÉN). It differs in having a fine and dense punctuation on the mesoscutum and the frontal parts of the second and third gaster tergites, and a very sparse punctuation on the mesopleura, these being partly without punctures.

♀: Head strongly constricted behind the eyes (Fig. 1). Clypeus small, 2.0 times as wide as long, rounded forward dorsally and with a faint concavity ventrally, the distance between the clypeal foveae 0.8 times as long as the distance between the outer edges of the antennal grooves. Mandibles small, with a distinct subbasal swelling. Malar space 1.1 times as wide as the basal width of mandible. Antennae with 25-27 segments, fourth segment 2.8 times as long as wide (Fig. 2). Face and frons with a fine and very dense punctuation on a coriaceous background, temples with a less dense punctuation on a smooth background. Mesoscutum with a dense or very dense punctuation, the punctures small, but deep, in most parts wider than their interspaces, the background smooth, on the frontal part sometimes weakly coriaceous (hardly visible). Mesopleura with some punctures and longitudinal striae dorsally, with very sparse punctures centrally and ventrally, partly impunctate, the speculum smooth. Metapleura variable, usually the ventral half rugoso-punctate, the dorsal half with small punctures, but sometimes the ventral 0.7 rugose. Areolet with the second intercubitus absent or weakly indicated, second recurrent

vein subvertical, with one wide bulla or two closely spaced bullae (Fig. 4). Hind femora 3.5-3.8 times as long as high. Propodeum completely areolated, the area superomedia three times as wide as long (Fig. 3). Second lateral areas usually more punctate than rugose. Postpetiole without dorsal carinae, with a sparse or dense punctuation (variable), the punctures rather deep. Punctures on the frontal and central parts of the second gaster tergite and on the frontal part of the third gaster tergite small, but deep, usually the punctures as wide as or wider than their interspaces. Ovipositor sheaths 1.2-1.3 times as long as the first gaster segment.

Head black. Antennae dark brown or black. Mandibles with a yellow spot centrally. Prothorax and mesopleura red. Mesoscutum and scutellum black, the mesoscutum sometimes red frontally. Mesosternum and metapleura red or black. Most parts of the legs red. Front coxae sometimes yellowish. Parts of the hind coxae, the apical parts of the hind femora and tibiae and the hind tarsi dark brown or black. Tegulae reddish brown. Axillary sclerites of wings whitish. Wings hyaline, with an indistinct brownish band. Pterostigma dark brown, with a white base. Propodeum black. Gaster black, second tergite with the basal 0.3-0.7 reddish brown, all tergites except the first with narrow apical red bands.

Holotype: Head 1.26 mm wide. Thorax 1.68 mm long, 1.00 mm wide (mesoscutum). Front wings 3.5 mm long. First gaster segment 0.88 mm long. Postpetiole 0.27 long, 0.53 mm wide. Second segment 0.63 mm long, 1.08 mm wide. Ovipositor sheaths 0.91 mm long. Body length (without ovipositor) 4.2 mm.

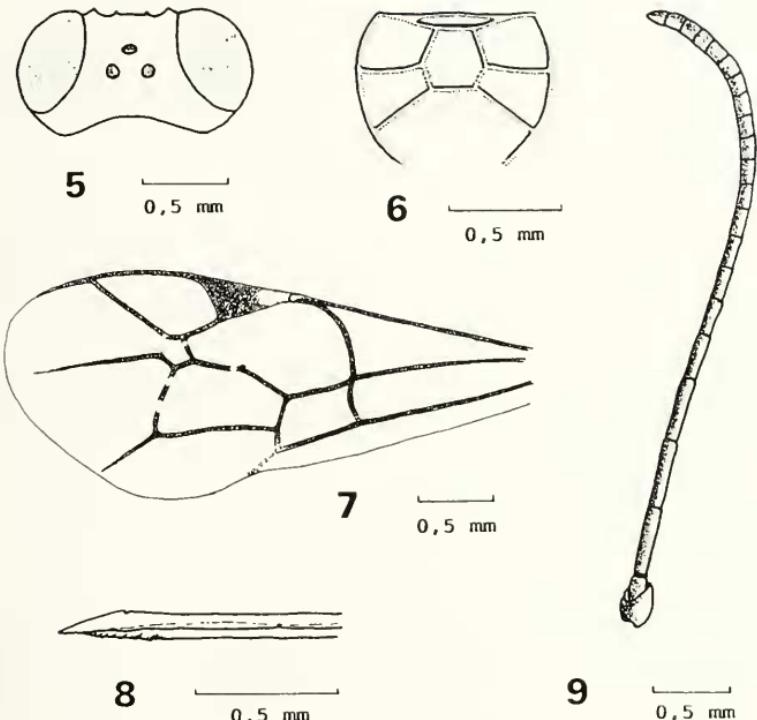
♂: Malar space 0.9-1.0 times as wide as basal width of mandible. Antennae with 23-24 segments, fourth segment 2.2 times as long as wide. Mesopleura with some punctures dorsally, impunctate centrally and ventrally. Metapleura usually for the greater part rugoso-punctate, the dorsal 0.2-0.3 only with punctures. Second lateral areas of propodeum rugoso-punctate, sometimes with punctures only. Second and third gaster tergites with a dense punctuation, the punctures small, but deep, in most parts wider than their interspaces.

Black. Mandibles with a yellow spot centrally. Scapus with a brownish spot below. Lateral parts of collum, apical parts of front coxae, front and middle trochanters and trochantelli, tegulae and axillary sclerites of wings usually whitish or yellowish (variable). All coxae, hind trochanters, apical parts of the hind femora and tibiae and the hind tarsi black. Front and middle femora, tibiae and tarsi and most parts of the hind femora and tibiae red. Sometimes the lateral parts of the collum, the tegulae and the front and middle trochanters and trochantelli brownish or black too. Wings hyaline, tinged with brown. Pterostigma dark brown or black, with a small white base. Second and third gaster tergites with the basal 0.3-0.7 red or reddish brown, all tergites except the first with narrow apical red bands.

#### *Zoophthora macrops* sp. n.

Holotype (♀): Gandia (Valencia), 24/30-VI-89, Malaise trap, leg. J. SELFA" (Museo Nacional de Ciencias Naturales, Madrid). Paratypes: 1♀ same locality and collector, 24/30-VI-1989 (coll. HORSTMANN); 1♀ same locality and collector, 1/9-VII-1989 (coll. BORDERA); 1♀ El Palmar (Valencia), 13/20-VII-1992, Malaise trap, leg. SERRANO (coll. HORSTMANN); 3♀♀ same locality and collector, 20/27-VII-1992 (1♀ coll. BORDERA, 2♀♀ coll. HORSTMANN); 1♀ same locality and collector, 11/17-VIII-1992 (coll. BORDERA); 1♀ Saler (Valencia), 29-X-1991, leg. BORDERA (coll. BORDERA); 1♀ same locality and collector, 25-V-1992 (coll. BORDERA).

The new species belongs to the *Zoophthora palpator* group (HORSTMANN 1992: 249 f.), close to *Z. anglicanus* (MORLEY), *Z. dodecellae* (OBRTTEL et ŠEDIVÝ) and *Z. insulator* (AUBERT). It differs in having very large eyes and short temples, the first (frontal) lateral areas of propodeum punctate on a smooth background, the area superomedia smooth frontally, punctate caudally, and the third gaster tergite with a dense punctuation frontally, and from *Z. anglicanus* and *Z. dodecellae* also in having the head and thorax red coloured.



Figs. 5-9. *Zoophthorax macrops* sp. n., holotype ♀. 5. Head in dorsal view; 6. Propodeum in dorsal view; 7. Front wing; 8. Apex of ovipositor in profile; 9. Antenna.

♀: Head strongly constricted behind the eyes, eyes 2.5-2.8 times as broad as the temples (seen from above) (Fig. 5). Clypeus rounded dorsally, flat in the ventral third, punctate dorsally and smooth ventrally, with the apical margin thin and rounded forward (more so centrally), without an indication of a tooth. Dorsal tooth of mandible slightly longer than the ventral tooth. Malar space 0.7 times as wide as basal width of mandible. Antennae with 20-22 segments, fourth segment 5.2 times, sixth segment 3.1 times, penultimate segment 1.1 times as long as wide (Fig. 9), flagellum filiform. Head, thorax and propodeum in most parts with a fine and dense punctuation on a smooth background. Frons and temples with some wrinkles. Pronotum with some longitudinal wrinkles laterally. Epomia present, but short. Mesoscutum somewhat coriaceous frontally, densely rugose centrally. Notauli strong frontally, fading out at the basal third. Scutellar groove with longitudinal striae. Mesopleura partly smooth dorsally (on and in front of the speculum), with fine longitudinal wrinkles ventrally. Postpectal carina complete. Areole with the second intercubitus absent or weakly indicated, second recurrent vein distinctly inclivous, with two separate bullae (Fig. 7). Nervellus intercepted, distinctly inclivous. Legs rather stout, hind femora 3.4 times as long as high. Tarsal claws distinctly longer than arolium. Propodeum completely areolated, the longitudinal carinae sometimes weakly developed only. Area superomedia 1.0-1.3 times as long as wide (Fig. 6), with a smooth area of variable size frontally. Second lateral areas sometimes with some wrinkles combined with a dense punctati-

on. Area petiolaris with transverse wrinkles. First gaster segment rather stout, rounded dorsally, without dorsal carinae, dorsolateral carinae divergent from base to apex, its tergite with fine longitudinal striae and wrinkles, smooth caudally, its sternite not reaching the spiracles. Second tergite with a dense punctuation and with fine striae and wrinkles, the striae and wrinkles mostly transversally, the caudal 0.2-0.3 smooth, epipleura about six times as long as wide. Third tergite with a very dense punctuation frontally, the caudal 0.3 with fine and sparse punctures on a smooth background. Ovipositor straight, with a weak nodus and rather strong teeth (Fig. 8). Ovipositor sheaths 0.9-1.0 times as long as the hind tibiae.

Head, thorax and propodeum red or reddish brown, only some sutures black. Teeth of mandibles black. Antennae reddish brown, the apex infuscate. Legs for the greater part red. Front coxae, front and middle trochanters and all trochantelli usually yellow. Hind femora, hind tibiae and all tarsi brown or black. Some specimens with additional dark markings on various parts of the legs. All tibiae with a distinct subbasal white ring. Tegulae brown. Axillary sclerites of wings whitish. Wings hyaline, with two brownish bands, the inner narrow and indistinct, the outer broad and distinct. Gaster black, the first and second tergites with brown markings or totally reddish brown.

Holotype: Head 1.20 mm wide. Thorax 1.73 mm long, 0.94 mm wide (mesoscutum). Front wings 3.6 mm long. First gaster segment 0.78 mm long. Postpetiole 0.38 mm long, 0.60 mm wide. Second segment 0.52 mm long, 0.96 mm wide. Ovipositor sheaths 1.16 mm long. Body length (without ovipositor) 5.0 mm.

♂: Unknown.

#### Literature

- HORSTMANN, K. 1992: Revision einiger Gattungen und Arten der Phygadeuontini (Hymenoptera, Ichneumonidae). - Mitt. Münch. Entomol. Ges. **81** (1991), 229-254.  
TOWNES, H. 1983: Revisions of twenty genera of Gelini (Ichneumonidae). - Mem. Am. Entomol. Inst. **35**, 281 pp.

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